STATEMENT OF EDWIN F. LOWRY
DIRECTOR, CALIFORNIA DEPARTMENT OF TOXIC SUBSTANCES CONTROL
REGARDING THE READINESS AND RANGE PRESEVATION INITIATIVE
PROPOSED BY THE DEPARTMENT OF DEFENSE

PREPARED FOR THE
HOUSE COMMITTEE ON ARMED SERVICES, READINESS SUBCOMMITTEE
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I am Edwin F. Lowry, Director of the California Department of Toxic Substances Control. My Department's charge is to protect public health and the environment in California from the adverse effects associated with exposure to hazardous wastes. In accomplishing this mission, we regulate hazardous waste management and oversee hazardous site cleanups throughout the State of California.

I appreciate the opportunity to offer my views concerning amendments proposed by the Department of Defense (DoD) to the Resource Conservation and Recovery Act (RCRA) and to the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) with regard to the Readiness and Range Preservation Initiative. This statement represents the views of the Department of Toxic Substances Control related to our statutory responsibility to oversee the generation, transportation, treatment, storage, disposal, and cleanup of toxic substances in California.

Before I begin to outline our concerns with the proposed amending language for RCRA and CERCLA, I wish to make three contextual points:

1. I want to assure you of our strong and continuing support for ensuring the readiness of the United States armed forces. Further, we fully appreciate that combat training and

equipment testing is essential to making our armed forces the strongest military force on the globe.

2. California has more experience with environmental issues at military facilities than does any other State. My Department has been and continues to be involved with environmental cleanup at 29 closed or closing installations, more than twice the number as the next most affected State. We work with 107 other open military installations both on matters having to do with hazardous waste management and with site cleanup. Further, California is home to 1,090 formerly used defense sites, at least one quarter of which will require cleanup to restore the land to productive use. It is clear, then, that we bring to the discussion a great deal of practical experience with respect to environmental issues at military properties.

3. I am proud to report to you that my Department has established what I consider to be an exemplary record of collaboration with the DoD and with each of the military services. This productive and cooperative relationship manifests itself most obviously in the many situations in which we have exercised considerable flexibility in our regulatory oversight to accommodate the operational needs of specific installations. I have provided you with a handful of examples.

Having reviewed the proposed Readiness and Range Preservation Initiative language, my concerns focus on five areas, each of which I will expand upon briefly in a moment:

1. As a practical matter, this proposal could allow the military to designate *any* location as an operational range.

2. The proposal, as worded, could exempt non-military entities, such as defense contractors, from having to comply with current environmental regulations.

3. The proposal could limit our ability to adequately regulate or clean up closed training ranges.

4. The proposal could limit our ability to restore formerly used defense sites to productive use.

5. The proposal could allow significant unnecessary contamination of California's valuable groundwater resources.

To repeat a previous comment, while I strongly believe that providing adequate training and testing opportunities is imperative, I believe with equal conviction that doing so does not have to be at the expense of public health and natural resources in California.

National security involves many elements, including protecting our environment for generations to come and restoring the land and water that has been adversely affected by the

release of hazardous substances. In my estimation, this proposal sacrifices the security of California's and the nation's environment.

Let me now further describe the five concerns I noted.

First, the proposed amendments could jeopardize public health and safety by allowing DoD to avoid important environmental safeguards even when there is no immediate effect on military readiness. This is because the military could designate any location as an operational range, whether or not it had any plans to use it for testing or training. While Section 2019(a)(1) of the proposal would modify the RCRA definition of "solid waste" to include "explosives, unexploded ordnance, munitions, munitions fragments, or constituents thereof" that are deposited on an "operational range" and are removed for treatment or disposal, it would exempt all wastes that are left on an "operational range," whether or not the range is still actually used for munitions testing or training.

The proposal also would severely curtail California's ability to regulate the practice of using open burning or open detonations to "treat," i.e., destroy explosives and unexploded ordnance. Given the known environmental impacts of this practice, which includes the release of metal fragments and toxic propellant residues, and the yet unknown environmental impacts, we find the proposal to be very troubling.

Second, the proposal is written broadly enough that it could apply anywhere that explosives or other covered materials are handled, even non-military facilities. Section 2019(a)(2) would exclude from the definition of "solid waste" any "explosives, unexploded ordnance, munitions, munitions fragments, or constituents thereof" that are used in military training, research and development or testing, or deposited on an operational range." In other words, not only would it apply to military ranges, but it could also exempt defense contractors

from the requirements of RCRA. Defense contractors handle a number of hazardous substances that are constituents of munitions or their delivery systems, such as perchlorate.

Perchlorate contamination from defense contractor facilities is a pervasive problem in groundwater in California and also in the Colorado River. As we see more and more water purveyors forced to shut down their municipal wells, I can say with confidence that perchlorate contamination threatens the drinking water supplies of millions of Californians. Obviously, we can ill-afford to exempt from regulatory oversight defense contractors which might exacerbate this troubling situation.

Third, contrary to representations by DoD, the proposal has not been drafted to limit its effect to operational ranges. The language at the end of Section 2019(a)(2) states: "Nothing in subparagraphs (2)(A), (B), (C), (D), or (E) hereof affects the legal requirements applicable to explosives, unexploded ordnance, munitions, munitions fragments, or constituents thereof that have been deposited on an operational range once the range ceases to be an operational range." As written, this language would only apply to Section 2019(a)(2) and not to Section 2019(a)(1). Thus, this language would not affect materials left on an operational range, and these materials would still be excluded from the definition of "solid waste" by Section 2019(a)(1), even after the range ceased to be operational. The proposal would also narrow our authority to use CERCLA to ensure cleanups at military bases. Section 2019(b) would exclude from the CERCLA definition of "release" any "explosives, unexploded ordnance, munitions, munitions fragments, or constituents thereof" that are deposited and expected to remain on an "operational range." As stated above, the military could designate any location as an "operational range," including an inactive range that had not been used for that purpose for decades and might not ever again be used as a range. Moreover, the proposal would also limit our cleanup authority at closed ranges,

because materials deposited on a range when it was open could still be excluded from the definition of "release" even after it was closed. For obvious reasons associated with potential future land uses, this element of the proposal is completely at odds with the protection of public health and the environment.

Fourth, the circuitous exclusion described above could limit California's authority to ensure cleanups at formerly used defense sites. Currently, there are 1,090 such sites in California, of which at least 200 are likely to be contaminated with explosives and ordnance. These sites will pose obvious risks to public safety if they are not restored to safe conditions.

Fifth, the proposal would exclude from the definition of "solid waste" and the definition of "release" constituents of munitions (including perchlorate) in groundwater below a range as long as they had not migrated off range. Once contaminated groundwater migrates off range it can be far more difficult to contain, posing much higher risks and costs. As I noted previously, California's pervasive perchlorate contamination is causing the shutdown of public drinking water wells and other serious impacts at present. We object to any proposal that would allow a known problem to be uncontrolled until such time as an artificial boundary is crossed.

I have two additional, non-technical concerns. First, the section-by-section analysis prepared by DoD for this proposal claims, as the basis for this initiative, that:

> In recent years…novel interpretations and extensions of environmental laws and regulations, along with such factors as population growth and economic development, have significantly restricted the military's access to and use of military lands and test and training ranges, and limited its ability to engage in live-fire testing and training.

As the Director of California's Department of Toxic Substances Control, do not agree with this conclusion. Far from significantly restricting the use of test and training ranges, I am not aware of any instances in California in which any hazardous waste management or cleanup requirement has impeded, limited or infringed on the military's ability to conduct mission-critical operations, including training or testing activities. In fact, nationally, the *Washington Post* recently quoted EPA Administrator Christine Todd Whitman as saying, "I don't believe that there is a training mission anywhere in the country that is being held up or not taking place because of environmental protection regulation."

Contrary to the DoD statement, my Department has consistently worked with DoD and the military services to resolve peripheral issues resulting from range use. For example, open burning of excess propellants and open detonation of munitions left over from live fire exercises may be managed under federally-delegated State hazardous waste management authorization in order to ensure that releases are properly controlled. These kinds of activities have no effect on the conduct of the range firing itself. Nevertheless, we have provided base managers with the necessary flexibility to carry out these activities. We routinely approve variances to allow military facilities to accumulate wastes beyond the normal time limits, and we issue emergency permits to allow the open burning of munitions that cannot safely be removed to the permitted treatment area.

For site cleanups on operating military bases, we have worked with base managers to position monitoring devices and schedule the collection of environmental samples in a manner that will avoid any conflict with ongoing military base operations. These are just a few of the many ways that we have worked cooperatively with the military to resolve issues arising from the implementation of environmental laws. The attached document provides other examples. If

the very premise of DoD's proposal is that California or any State has adversely affected the military's ability to maintain the highest state of readiness, I assert that the premise is flawed and, therefore, the proposal as a whole is unnecessary. In fact, our substantial record of cooperation with the military demonstrates that there is no need for the proposed RCRA and CERCLA amendments.

Finally, assuming the worst about other States' hazardous waste management and cleanup practices, to which I am hard-pressed to give an example, even if there were a situation in which RCRA or CERCLA interfered with essential live-fire testing or training, these statutes still provide extraordinary Presidential authority to suspend their application so that essential training activity could be continued. I am not suggesting use of this authority should become routine, nor that it be used lightly. Like all extraordinary powers, they must be used with respect and circumspection. But the fact remains that the authority is available. Congress has already provided remedies for extraordinary circumstances, and if they are insufficient, a much stronger justification needs to be put forth.

To conclude, I am concerned that DoD's proposal could lead to an open-ended inclusion of environmentally damaging activities under the umbrella of "readiness." As a result, not only might legitimate training and testing activities lead to avoidable releases of contamination, but other marginally-related activities might also cause avoidable releases of hazardous substances. The military, as responsible party, and State and federal regulators would then have to revisit these releases in the future as much larger and more expensive problems requiring cleanup.

I want to close by reiterating my strong desire to assist DoD and the military services in more practical ways. The Department of Toxic Substances Control will continue to work with the military to make effective use of their active range resources, and to improve the likelihood

that those ranges will continue to be sustainable into the indefinite future. We believe we have an obligation to actively assist our armed forces in improving and maintaining the high level of preparedness required by the times. Their well being and readiness are very important to all Californians, and we will work actively with their representatives to find ways to make range operations safe and workable. At the same time, we are obligated to protect California from environmental injury from all sources. I firmly believe that national security includes environmental protection and that there are better approaches to ensure that military security and environmental security complement, rather than counteract one another.

Coordination between the California Department of Toxic Substances Control and California Defense Installations

Examples of Flexible Regulatory Oversight to Minimize the Effect of Hazardous Waste Requirements on the Military's Mission

Hazardous Waste Enforcement and Permitting / RCRA

DTSC is unaware of any instances in California where hazardous waste requirements or enforcement action at a military installation, under either RCRA or the State hazardous waste control laws, have impeded, limited or infringed on the military's ability to conduct mission-critical operations, including training activities.

China Lake

China Lake holds an interim status permit which allows for the treatment of explosive wastes at an open burning/open detonation (OB/OD) area. This permit limits the amount of wastes that can be treated at any one time. DTSC granted an extension to the permit's 90-day storage limit so that the Army can accumulate wastes that could not be treated under the quantity limits of the permit.

The China Lake OB/OD interim permit also limits burn activities to prescribed "burn days" designated by the local air district. Treatment was not allowed because of a severe limit of "burn days" due to wildfires in the Angeles National Forest. Delays in treatment required the explosive wastes to be stored for longer than the permit allowed. On these occasions, DTSC issued storage time extensions to allow China Lake to carry out its OB/OD treatment activities without violating its permit.

DTSC has also issued emergency permits for the immediate treatment of unexploded ordnance (UXO).

Sierra Army Depot

While conducting a range sweep, the Army found pyrotechnic items (e.g., "smokers") that were unsafe to move to the installation's permitted OB/OD area. DTSC issued an emergency permit to allow the one-time open burning of these items outside the permitted OB/OD area. This allowed the Army to continue its range sweep operations and to not endanger civilian and military personnel attempting to move the unstable items.

Fort Hunter Liggett

Fort Hunter Liggett does not have a permitted or interim status OB/OD area. DTSC issued an emergency permit to allow the detonation in place of unstable ordnance found on the installation. This allowed the UXO to be treated without transportation off site.

Edwards AFB
DTSC issued an emergency permit to allow the one-time, open burning of 340 pounds of solid rocket propellant, propellant ingredients and propellant-contaminated rocket disposal equipment. Edwards has a permitted OB/OD area. However, these items were unstable and transporting them to the permitted area was unsafe.

Site Cleanup/CERCLA

Camp Pendleton
DTSC expedited its review of the time critical removal action documents that the Marine Corp prepared for the removal of PCB-contaminated soils from the site where the Helicopter Out Landing Field is constructed. The field is located within the habitat of an endangered species, the Arroyo Southwestern Toad. DTSC reallocated staff resources to approve the removal action quickly so that the Marines can take advantage of a construction window during the non-mating season for the Arroyo Southwestern Toad.

McClellan AFB
During the time when McClellan was an active AFB and at the request of the McClellan base commanders, DTSC routinely re-located soil sampling locations at buildings where aircraft repair or maintenance were performed to accommodate the Air Force as they carried out their mission.

While the Defense Reutilization and Marketing Office (DRMO) continued its operations, Air Force contractors collected (with DTSC oversight) over 5,000 samples and completed the selected CERCLA remedial action (i.e., placement of a cap) at Operable Unit B1 (DRMO's paved area).

At another McClellan location, the base plating shop, the CERCLA cleanup investigation was conducted so as to avoid interfering with base operations.

Travis AFB
DTSC implemented a cleanup removal action to install two horizontal groundwater extraction wells under the airfield apron, without affecting base flight operations. DTSC approved the horizontal well construction instead of less costly vertical wells in order to accommodate base operations.

Immediately following September 11, 2001, Travis AFB and other active bases went on high alert. State environmental staff and Air Force contractors involved with base CERCLA cleanup activities and hazardous substances treatment systems could not come onto the base to operate the systems or carry out routine cleanup work. Access was similarly restricted at all other active military installations. Because of the need for the military to carry out its defense mission, the State accepted this as a necessary precaution. No use of CERCLA, RCRA or other state law authority to gain access was contemplated, nor would the state consider such action where national security is an issue.

Vandenberg Air Force Base
Site 9 (IRP site at Space Launch Complex 4 West)
In November 2002, prior to the final approval of the CERCLA Interim Remedial Action Work Plan in December 2002, DTSC gave the Air Force its "conditional approval" to construct a concrete containment pad for the groundwater treatment system. The conditional approval allowed the construction before the winter rainy season and before a December-scheduled launch operation. Construction activities cease occasionally to accommodate scheduled space missile launch activities and unscheduled-launch delays.

Site 8 (IRP site at Space Launch Complex 4 East)
In October 2002, DTSC conducted additional investigation of the TCE contamination source area near the launch pad. Originally, DTSC selected 12 soil gas locations for further investigation and obtained clearance from utility interference. Because of launch operation constraints, the launch operations commander only approved five of the original 12 soil gas locations. To accommodate this request, DTSC is currently evaluating the placement of these fewer borings to best characterize the TCE plume.

Site 25 Cluster (a cluster of IRP sites at Space Launch Complex 2 and Space Launch Complex 1)
With concurrence from DTSC, the Air Force conducts investigation work only during the winter season for the evaluation of a TCE plume that extends from this site to an adjacent sand dune beach. The Least Tern, a protected species, nests in this beach area. The shortened winter work phase accommodates the Least Tern nesting season, which is March 1 through September 30 of each year.

Naval Station San Diego
Site 6, Time Critical Removal Action (TCRA)
In April 1996, the Navy proposed a CERCLA time critical removal action to reduce the risk at the site (from mostly polycyclic aromatic hydrocarbon compounds [PAHs], which are very persistent environmental contaminants) and to prepare the site for a scheduled military construction project. This project included the building of structures for the staging of military equipment, vehicles and supplies.

The DTSC/Navy Team shortened the review periods for primary Installation Restoration Program (IRP) documents (e.g., Remedial Action Plans (RAP), Removal Action Work plans, Removal Site Evaluations, and Preliminary Endangerment Assessments). As part of these shortened review cycles, DTSC works with the Navy to conduct "Over the Shoulder Reviews" to identify potential problem areas in these documents. The process involves a presentation by the Navy's consultant of the primary document's content, followed by a group discussion. In these discussions DTSC identifies possible major concerns and discusses these issues with the Navy staff, its consultants, and other regulatory agencies present. During such reviews, regulatory concurrence is often made on the same day. This collaborative process results in immediate implementation of the cleanup work plan. The Navy benefits in these fast track projects by avoiding the loss of budget and limiting the operational constraints because of extended implementation times.

DTSC expedited its approval of the CERCLA Time Critical Removal Action Plan in June 1996, two months after submittal. This time critical removal action concluded in record time and the fieldwork completed at the end of July 1996. This provided ample lead-time for the Navy's construction scheduled toward the end of the year. The Navy removed and transported offsite approximately 5,090 tons of PAH-impacted soil for treatment and recycling. This removal action reduced the excess cancer risk associated with the site from $3X10^{-3}$ to $1.2X10^{-6}$.

Site13: Former Sand Blasting Area
This site is located at the base cogeneration plant, which operates large gas turbines. DTSC coordinated the excavation and cleaning of the former sand/grit blasting materials below-ground vault with the energy company to coincide with gas turbine maintenance and off-line schedules. These types of coordination activities eliminate disruption of mission critical equipment operations and disruption of base electricity service.

Site 1: Former Ship Repair Basins Location
The CERCLA removal action activities at this site are scheduled to limit military and civilian personnel so that the most disruptive activities (e.g., excavation and drilling) occur when ships are not present at the piers that front the site.

Naval Air Depot, North Island
IR Site 5, Unit 2 Soil Removal
The CERCLA time critical removal action began on a Friday evening and continued through the following weekend to avoid interfering with flight operations and golf course activities. The Navy, in consultation with DTSC, selected a chemical oxidation groundwater treatment system for the site because the site is on the flight path of the runway and the use of large equipment would be impracticable at the site. For example, the installation of a soil vapor extraction treatment system requires the construction of large high-profile tanks and associated piping, while a chemical oxidation system requires the construction of low-profile and smaller pieces of equipment.

Site 9 Feasibility Study
DTSC considered the Navy's concerns for base flight paths and all mission activities when it evaluated the selected remedial actions identified in the feasibility study. In each remedial action evaluation, DTSC fulfilled the Navy's request to also consider the effects of the selected remedy with the loading and unloading of weapons at Bravo Pier (a mission-critical activity at North Island). To meet these mission-critical activities, Site 9 is routinely cleared of civilian personnel and equipment during Bravo Pier weapons loading and unloading operations. A proposed evapotranspiration plot (i.e., evaporation and transpiration sand beds) for disposing of treated wastewater at Site 9 is under reconsideration because of concerns by the Navy that the evapotranspiration plot will attract birds and this will interfere with established aircraft flight paths.

Tank Farm
While constructing new fuel tanks, the Navy destroyed several groundwater extraction wells. These wells are part of a system of wells used to address the plume of a fuel (a

combination of JP5 and aviation gas) that underlies the tank farm site. The State continues to use the existing wells to monitor the plume and it proposes no new well construction to replace the destroyed wells. This allows the Navy to maintain its fueling operations.

IR Site 1, Outfalls 9 through 15

The Navy implemented an expedited remedial action under CERCLA to meet its need for the construction of a new nuclear carrier pier. As part of the expedited action, DTSC allowed the Navy to remove materials dredged from the shipping channel and to dispose of these dredge materials into the confined disposal facility that underlies the site. DTSC assists the Navy in finalizing its cleanup of the site by allowing the inclusion of these interim removal activities as part of the final remedy selected for the site.

Pier Construction Project

In 2002, several groundwater-monitoring wells were destroyed during the construction of a new pier. To accommodate the operations at the new pier, DTSC approved the drilling and construction of new wells at different locations to replace the destroyed wells.